

CLAIMS

1. A recovery device for an ink jet printer, comprising:  
wiping means that wipes each of ink discharge surfaces of print heads that discharge ink; and  
cap means that caps each of the ink discharge surfaces, wherein the recovery device is disposed so that the wiping means and the cap means at least partially overlap each other, as seen from the ink discharge direction of the print head.
2. The recovery device for an ink jet printer according to Claim 1, wherein:  
the cap means comprises a cap section that caps the ink discharge surface of the print head, and an ink receiving section disposed on the opposite side of the cap and having an ink absorbing member for receiving ink discharged by the print head for recovery processing;  
when the cap means caps the ink discharge surface of the print head, the cap means is configured so that the cap section is located at a capping position opposed to the ink discharge surface of the print head; and  
when the ink discharge surface is wiped by the wiping means, the cap means is configured so that the cap section is located at a retreat position spaced apart from the ink discharge surface, and that the ink receiving section is opposed to the ink discharge surface.

3. A recovery device for an ink jet printer, comprising:  
a cap member capable of covering an ink discharge surface of a print head that discharges ink in a downward direction,

wherein, in the cap member, an ink suction hole for sucking ink discharged on the surface of the cap member opposite to the print head is disposed in equal position with respect to a nozzle area of the print head.

4. The recovery device for an ink jet printer according to Claim 3, wherein the ink suction hole is disposed in substantially the central portion of the nozzle area of the print head in the longitudinal direction.

5. The recovery device for an ink jet printer according to Claim 3, wherein a plurality of the ink suction holes is arranged along the longitudinal direction of the nozzle area of the print head.

6. The recovery device for an ink jet printer according to Claim 3, wherein the ink suction hole has an oblong hole shape extending along the longitudinal direction of the nozzle area of the print head.

7. A recovery device for an ink jet printer, comprising:  
a cap capable of covering an ink discharge surface of a print head that discharges ink in a downward direction,  
wherein the cap has an ink suction hole for sucking ink discharged or sucked on the surface of the cap opposite to

the print head; and

wherein an inclined surface such that the ink suction hole portion assumes the lowest position on the surface of the cap opposed to the print head during at least one period of time in a sucking process by the cap, is formed on the surface of the cap opposed to the head.

8. The recovery device for an ink jet printer according to Claim 7, wherein the print head of the ink jet printer is a fixed type print head that does not move in a horizontal direction at least during printing.

9. The recovery device for an ink jet printer according to any one of Claims 7 and 8, wherein, in a state where the cap has capped the ink discharge surface of the print head, the cap has an inclination formed at at least one portion of the surface thereof opposed to the print head so that the ink suction hole assumes the lowest position on the surface of the cap opposed to the print head.

10. The recovery device for an ink jet printer according to any one of Claims 7 and 8, wherein, in a state where the cap is retreated at a retreat position with respect to the print head, an inclined surface that is inclined with respect to the ink suction hole, is formed on the surface of the cap opposed to the print head.

11. The recovery device for an ink jet printer according to any one of Claims 7 and 8, wherein each of the inclined

surfaces of the respective one of the caps is formed by deforming the surface of the cap opposed to the print head.

12. The recovery device for an ink jet printer according to any one of Claims 7 and 8, wherein, in the cap, at least one portion within the cap is inclined so that the ink suction hole assumes the lowest position.